AOS 580 AEROSOL, CLOUD AND CLIMATE

Lecture 8: Aerosol Microphysics (Instructor: Yi Ming)

Reading
SP (1st ed.) 545-555, 656-664

Class notes

1. Spatial scales in atmospheric science: where does microphysics fit in?

2. Nucleation
   Definition
   Homogeneous vs. heterogeneous nucleation
   Homomolecular vs. heteromolecular nucleation
   Supersaturation
   Concept of critical clusters
   Derivation of classical nucleation theory
   Capillarity approximation

3. Coagulation
   Definition
   Conceptual model
   Derivation of rate constants